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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/216,519	12/18/1998	DARREN KERR	112025-0112	9572

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EXAMINER

MEISLAHN, DOUGLAS J

ART UNIT	PAPER NUMBER
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2137

DATE MAILED: 12/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/216,519

Applicant(s)

KERR ET AL.

Examiner

Douglas J. Meislahn

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2137

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-53 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This action is in response to the amendment filed 04 September 2003 that added claims 50-53 and amended claims 1, 3-5, 9, 11, 15, 18, 21, 23, 26-28, and 30-34.

Response to Arguments

2. Applicant's arguments filed 04 September 2003 have been fully considered but they are not persuasive.

3. Applicant's interpretation of the examiner's suggestion with respect to the 101 rejection of "electromagnetic signals propagating on a computer network" misses the fundamental idea of claiming, instead of the signal, the network on which the signal propagates. If applicant is aware of any case law that confirms applicant's view that signals propagating on a network are statutory, it would guide the decision made by the examiner.

4. Applicant's clarification that "OR" should be treated as "logical or" raises a new objection to the claims, that being that the phrase "either x logical or y" is improper English and rather devoid of meaning.

5. Applicant's response to the 112 1st paragraph does not show that the ALU enables an encryption execution unit to do anything, partly because the ALU's output is fed into a multiplexer.

6. Applicant's comments on page 35 about the 101 rejection are directed to computer readable media, which are absent from the claim that is rejected.

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7. Applicant's arguments with respect to the art rejections of the claims 1-19 and 21-49 cannot be given proper weight while the scope of the claims remains unclear.

8. With respect to claim 20, applicant argues that the cited prior art does not show a selector. However, multiplexers are selectors, and Farrell et al. show a multiplexer.

Claim Objections

9. Claims 20, 21, 27, 35, 40, 41, 44, 45, and 49 are objected to because of the following informalities: claims 20, 21, 27, 35, 40, 41, and 45 are unclear because of the phrase "either x OR y" (see the response to arguments); claims 44 and 49 need an "a" after "providing" in their second lines. Appropriate correction is required.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-19 and 21-53 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification does not teach an ALU enabling or transferring processing to an encryption execution unit.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 34, 51, and 53 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Data structures must be tangibly embodied to be statutory.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-19 and 21-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hawe et al., in view of Chi et al., Johns-Vanos et al., Farrell et al., Narad et al., Schneier, and the Microsoft Press Computer Dictionary.

Given the ambiguities in the claims that resulted in the 112 rejections, a detailed analysis of the claims is infeasible. However, the examiner believes that, when claimed clearly, the previously cited prior art, Hawe et al., Chi et al., Johns-Vanos et al., Farrell et al., and Narad et al. would render the claims obvious. It is possible that the rejection would be clearer when fleshed out by a definition given by the Microsoft Press Computer Dictionary, specifically that for a multiplexer. Also, a discussion of DES, such as that given by Schneier in *Applied Cryptography* at pages 265-301, might show the ubiquitous nature of some claim features.

6. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Farrell et al. in view of Chi et al., and Narad et al.

Farrell et al. show a TCSM at 103 in figure 10. Element 102 in the same figure is a multiplexer that selects either an (indirect) output of the TCSM or inputs from an outside source, which are sent from microcontroller. Farrell et al. do not say that the TCSM is for encryption, that a plurality of them are arranged in rows and columns between an input header buffer and an output header buffer, or that they are responsive to the microcontroller reading an opcode. Narad et al. teach TCSMs as encryptors in figures 1-3 as well as other sections already cited. Chi et al. teach controlling cryptographic processes with opcodes at lines 56-63 of column 4. Chi et al. also teach using arrays in lines 34-56 of column 11. Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to place the pipelined TCSM of Farrell et al. into an array to multiply its power as shown by Chi et al. and to use opcodes (also taught by Chi et al.) to direct it to perform encryption, a computationally-intensive procedure, as taught by Narad et al.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Douglas J. Meislahn whose telephone number is (703) 305-1338. The examiner can normally be reached on between 9 AM and 6 PM, Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory A. Morse can be reached at (703) 308-4789. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Douglas J. Meislahn
Examiner
Art Unit 2137

DJM


GREGORY MORSE
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